

The U.S. Navy is continuing groundwater monitoring at Naval Auxiliary Landing Field or “NALF” Crows Landing. This fact sheet informs and updates the community about recent groundwater sampling results.

Groundwater samples are collected quarterly (every 3 months) at NALF Crows Landing to track any changes in contamination. The monitoring results described in this fact sheet are from samples collected in November 1996. No groundwater contamination at NALF Crows Landing extends beyond the base boundaries.

This fact sheet summarizes information from the NALF Crows Landing fourth quarter 1996 (October through December 1996) groundwater monitoring report. The fourth quarter 1996 groundwater monitoring report, as well as other reports describing environmental studies at the base, are available for review at the Patterson Public Library. The address and telephone number of the library are:

Patterson Public Library
Reference Desk
46 North Salado Avenue at 3rd Street
Patterson, California 95363
(209) 892-6473

GROUNDWATER MONITORING SYSTEM

The groundwater monitoring system is designed to track groundwater contamination at NALF Crows Landing. The monitoring system includes 42 wells located around six areas of known or suspected contamination. Three additional wells are located distant from any contaminated areas to monitor the overall quality of groundwater in the area. The base’s water supply well is also sampled.

Four of the areas of known or suspected contamination are where fuel was stored in underground tanks. These four underground storage tank or “UST” sites include UST Cluster 1, UST Cluster 2, UST 109, and UST 117. The UST sites were contaminated when fuel leaked from the tanks, pipelines, or associated equipment. The tanks have all been removed but some fuel contamination remains at each site.

The other two sites with groundwater monitoring wells are called Installation Restoration Program or “IRP” sites. IRP Site 11, the disposal pits area, is an old landfill. IRP Site 17, the demolished hangars area, is where aircraft were maintained.

GROUNDWATER CONTAMINATION

This section describes groundwater monitoring results at the four UST and two IRP sites for November 1996. The map in this fact sheet shows the extent of groundwater contamination beneath the base. These areas of groundwater contamination are called contaminant “plumes.” None of the groundwater contaminant plumes extend beyond the base boundaries.

UST Cluster 1 was the main aircraft fuel storage facility at the base. The site consisted of three 50,000-gallon tanks and associated piping and equipment. The tanks were built in the mid-1940s and were taken out of service by 1990. The tanks were demolished and removed in 1994.

Groundwater beneath this site has been contaminated with aircraft fuel. Sampling results for November 1996 indicate some movement of this contaminant plume to the west compared to previous monitoring periods. Plume movement, however, is very slow. Even with continued movement, the UST Cluster 1

contaminant plume would not reach the base boundary for many years. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

UST Cluster 2 was another aircraft fuel storage facility at the base. The site consisted of three 210,000-gallon tanks and associated piping and equipment. The tanks were built in 1952 and were taken out of service in 1965. The tanks were demolished and removed in 1994.

Groundwater beneath this site has been contaminated with aircraft fuel. However, the extent of contamination at UST Cluster 2 is much smaller than at UST Cluster 1. Sampling results for November 1996 indicate little change in the contaminant plume size compared to previous monitoring periods. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

UST 109 was used to store fuel for the administration building furnace. The 1,000-gallon tank was installed in the late 1950s and was taken out of service in 1987. The tank was excavated and removed in 1988.

A previous study by the U.S. Navy found contaminated soil beneath the site but no apparent groundwater contamination. However, sampling results for November 1996 indicate that very low concentrations of possible fuel contamination may have now reached groundwater. Groundwater monitoring will continue at this site to verify if any contamination has moved downward to groundwater.

UST 117 was used to store gasoline for motor vehicles. The 1,200-gallon tank was installed in the 1940s or 1950s and was taken out of service in 1988. The tank was also excavated and removed in 1988.

Groundwater beneath the site has been contaminated with gasoline. Sampling results for November 1996 indicate some slight changes in the plume shape compared to August 1996. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

IRP Site 11 was used for refuse disposal from the late 1960s to the early 1980s. Refuse was placed in shallow pits dug at the site and burned. The refuse included office trash (mostly paper), kitchen waste, scrap metal, and empty paint and pesticide containers.

Fuel-related groundwater contamination was detected at very low concentrations in several monitoring wells previously sampled at this site. Usually, the fuel-related contamination is random and inconsistent. No contamination was detected in samples collected in November 1996. Groundwater monitoring will continue to evaluate this apparent contamination problem.

IRP Site 17 consisted of two aircraft hangars flanking a maintenance building. The site was used for aircraft maintenance from the mid-1940s to the late 1950s. Both the hangars and maintenance building were

demolished by the late 1950s.

Carbon tetrachloride has been detected in groundwater beneath IRP Site 17. Carbon tetrachloride is a solvent that was probably used for cleaning aircraft parts. No significant change in the plume size is apparent from samples collected in November 1996. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

SUMMARY

Four different groundwater contaminant plumes have been outlined beneath NALF Crows Landing. Three of these plumes are located near the east side of the base. These three plumes consist of aircraft fuel (UST Cluster 1), gasoline (UST 117), and the cleaning solvent carbon tetrachloride (IRP Site 17). The fourth contaminant plume is located at the northern end of the

base and consists of aircraft fuel (UST Cluster 2). Some groundwater contamination may also be associated with refuse disposal at the center part of the base (IRP Site 11). None of the groundwater contaminant plumes identified beneath NALF Crows Landing extends beyond the base boundaries.

Groundwater monitoring will continue at NALF Crows Landing. Groundwater samples will be collected next in February 1997 (first quarter 1997). For more information about groundwater monitoring efforts at NALF Crows Landing, please contact:

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